

## PROVISIONAL INTELLIGENCE REPORT

# CONSTRUCTION REQUIREMENTS OF THE NEW LANDS PROGRAM IN THE USSR



CIA/RR PR-142

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## CENTRAL INTELLIGENCE AGENCY

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CONSTRUCTION REQUIREMENTS OF THE NEW LANDS PROGRAM  
IN THE USSR

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(ORR Project 47.926)

NOTICE

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FOREWORD

It has been possible since releasing this report for publication to re-estimate the cost of rail construction in the "new lands" on the basis of additional changes from narrow gauge to standard gauge. Changes in the estimated cost of rail construction would result in upward revisions of 5.2 percent in the total costs of major installations (Table 1) and of 2.3 percent in total state construction costs from 1954 to 1956 (Table 2). The magnitude of these revisions falls within the margin of error in the given estimates. Documentation is available in the responsible branch of ORR.

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CONSTRUCTION REQUIREMENTS OF THE NEW LANDS PROGRAM  
IN THE USSR\*

Summary and Conclusions

Requirements for construction in the Soviet "new lands"\*\*\* have been heavy but apparently have had little effect on construction for other sectors of the economy. The 1956 volume of state construction in the new lands is to be reduced sharply from the peak level of 1955, possibly indicating that construction will be spread over a longer period of time. The underfulfillment of construction plans in 1954 and 1955 has had little noticeable effect on agricultural production, and it is improbable that future production plans will be impaired by such underfulfillment.

Basic additional facilities required for the new lands are approximately 14 million square meters of housing, farm buildings for 426 new state farms and for 400 to 500 new and significantly expanded machine tractor stations (MTS's), 2,132 kilometers (km) of rail lines and 6,100 km of roads, and grain storage capacity of about 20 million metric tons.\*\*\* Existing collective farms also are being expanded. The total cost of state construction in 1954-56 is estimated to be about 13 billion rubles, and the cost of collective farm and private housing construction will be 10 billion to 20 billion rubles.

Of the total amount to be spent on state construction in the new lands in the period 1954-56, it is estimated that 17 percent was expended in 1954 and 53 percent in 1955 and that 30 percent will be expended in 1956. A decline of expenditures in 1956 from the peak level of 1955 is considered normal. The sharpness of the drop, over 40 percent, was not expected, however, primarily because an increase, rather than a drop, in the volume of state farms construction had been estimated. This drop may indicate that part of the new lands program has been curtailed. Alternatively, it may indicate that construction

\* The estimates and conclusions contained in this report represent the best judgment of ORR as of 1 May 1956.

\*\* See the map, inside back cover.

\*\*\* Tonnages throughout this report are given in metric tons.

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schedules have been extended, with more construction to be done by private individuals and agricultural workers during spare time and the slack season rather than by full-time construction workers.

The estimated value of state construction in the new lands in 1955, 7 billion rubles, was about 7 percent of the total state funds allocated for new construction in that year. Surprisingly, in view of this large share, there was little curtailment of construction for other sectors of the economy. It may be that construction resources were reassigned from the suspended "great projects" program and the 10.5-billion-ruble MTS construction program. The peak construction effort for these programs was scheduled in the years 1954-56. During this period, construction manpower became available from heavy industrial projects, many of which were nearing completion. The wide use of local building materials in the new lands may also explain the apparently light effect on construction for other sectors of the economy.

General construction plans in the new lands were underfulfilled in 1954 and 1955, and housing construction in particular lagged. There is no evidence, however, that a shortfall in construction has disrupted agricultural production or will disrupt it in the future. There can be little doubt that the inadequacy of housing has had an effect on the morale of workers in the new lands, and it is probable that this situation will persist well into 1956.

It is probable that the USSR will succeed in completing the basic facilities required for agricultural production. Measures taken to speed up construction in the second half of 1955 were effective, and it is believed that they will be continued as long as necessary.

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## I. Introduction.

This report is intended to bring out the most important features of the construction program for the well-publicized "new lands" of the USSR. These features are the number of facilities to be built and the cost of their construction, the impact on the Soviet economy of this construction effort, the progress to date, and the prospects for completion of the goals set for the construction industry.

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Because of the large number of projects dispersed over wide areas where transportation facilities, support industry, and available labor were sparse, the possibility that an underfulfillment of the construction program would contribute to the underfulfillment of the entire new lands program has been examined in this report.

## II. Installations Planned or Required by the End of 1956.

The large volume of construction required for the establishment and operation of the new lands is reflected by the need for four basic types of installations -- accommodations for workers, transportation, storage facilities, and operational buildings. Estimated or announced requirements are for the construction of 14 million square meters of housing, communal facilities, 2,132 km of rail lines,\* 6,100 km of roads and highways,\* almost 20 million tons of granary capacity, and grain elevators with a capacity of over 773,000 tons. There are also plans for nonresidential farm buildings for 426 new state farms, 400 to 500 new and significantly expanded machine tractor stations, and an undetermined number of existing collective farms.

### 1. Housing and Other Facilities for the Population.

Total housing requirements of 14 million square meters are estimated on the basis of population data for the new lands. By the end of 1956 it is estimated that 2.8 million additional inhabitants will reside in the new lands.\*\* An average of 5 square meters of housing per inhabitant is applied to this total.\*\*\*

In addition to housing, installations being built at the new settlements include stores, dining halls, bathhouses, bakeries, wells, schools, medical facilities, club houses, and libraries. The total number and breakdown of these facilities is not known. In Kazakh SSR, however, over 1,000 stores, dining halls, bathhouses, and bakeries were to be completed in 1955. 1/\*\*\*\*

\* Rail-line and highway construction will continue in 1957. Most of this construction, however, will be completed by the end of 1956.

\*\* The total number of inhabitants is derived from the estimated requirements for additional workers in the new lands. The data and methodology for this estimate are given in Appendix A, Table 5, p. 17, below.

\*\*\* The basis for the average of 5 square meters per inhabitant is given in Appendix A.

\*\*\*\* For serially numbered source references, see Appendix C.

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2. Transportation.

In support of the new lands program, the USSR plans to build 2,132 km of rail lines 2/ and 6,100 km of motor roads. 3/ Of the total length of new rail lines, 1,575 km will be narrow-gauge and 557 km, broad-gauge.\* 4/ It is believed that roughly half of the new motor roads will be hard-surfaced and the other half, improved dirt roads.

3. Storage.

It is probable that by the end of 1956, almost 20 million tons of granary capacity and 773,000 tons of elevator capacity will be required for the new lands program. 7/ About 65 percent of the granary capacity and all of the elevator capacity were scheduled to be completed in 1954 and 1955. 8/ In addition, 110 elevators are to be started in 1956 and completed in 1957. 9/

4. Farms.

The volume of construction of farm buildings for the operation of the new lands program is reflected by the number of new farm units that have been established in connection with the program.\*\* In 1954 and 1955, 426 new state farms were established in the new lands, 337 in Kazakh SSR, 10/ and 89 in the RSFSR. 11/ During this period, 400 to 500 machine tractor stations were built or significantly expanded, over half of them in the RSFSR.\*\*\* Moderate expansion of other MTS and state farms through the new lands has undoubtedly taken place. In addition, the existing collective farms in the new lands areas have been expanded.

Each state farm and machine tractor station will have, when completed, a repair shop, equipment sheds and garages, POL storage facilities, power-generating facilities, and an administration building, as well as streets and roads. 12/ The state farms will also have livestock buildings and local grain storage facilities.

\* Plans announced in October 1954 called for the construction of 1,850 km of narrow-gauge and 282 km of broad-gauge line. 5/ In May 1955 it was stated that the 275-km Kurgan-Sovkhoz imeni Khrushcheva - Peski line would be broad-gauge, rather than narrow-gauge as originally planned. 6/

\*\* It is probable that the number of farm units already established will be adequate for the implementation of the program, because all of the 30 million hectares to be cultivated in 1956 were prepared in 1955. Additional construction at the established units will certainly continue, but it is believed that few if any new units will be required unless the area of cultivation should be enlarged.

\*\*\* The basis for this estimate is given in Appendix A.

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5. Ancillary.

Communications facilities and building materials installations are the other major requirements in the new lands. Telephone and telegraph lines and radio units have been built. 13/ Precast concrete plants with an annual capacity of 200,000 cubic meters, quarries, brick plants, carpentry shops, and the like are being built in support of the construction program. 14/ Three truck repair shops are planned, 15/ and a number of new local industry enterprises are being built. 16/

III. Estimated Value of Construction and Major Inputs.

The total value of state construction required for the new lands program in 1954-56 is estimated at 13.13 billion rubles.\* This sum will be adequate for the establishment of most of the basic facilities such as settlements, farm buildings, storage facilities, and transportation. Additional construction will undoubtedly continue beyond 1956, although at a greatly reduced rate.

1. Cost of Major Installations.

The cost of the major state-built installations is estimated at 12.525 billion rubles. This total is broken down by type of construction in Table 1.\*\* Satisfactory estimates of the cost of other state-built installations by type of construction cannot be made, because of the wide variety of materials and methods that can be used in their construction.

2. Total Estimated Cost.

For purposes of comparison with national data, the cost of state construction has been treated separately from collective farm or private construction. The estimated value of collective farm construction is quite tenuous, owing to a paucity of information. These totals are given in Table 2.\*\*\* The estimates are based on costs by type of construction, announced allocations, and interregional relationships which are described in Appendix A.

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\* In addition, the cost of rail lines and motor roads in 1957 is estimated at 360 million rubles.

\*\* Table 1 follows on p. 6.

\*\*\* Table 2 follows on p. 7.

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Table 1

Estimated Cost of Major Installations in the New Lands a/  
Selected Years, 1954-57

Billion Rubles		
Type of Construction	Years	Cost
State housing <u>b/</u>	1954-56	2.000
Rail lines	1954-57	1.075
Roads	1954-57	1.350
Storage facilities	1954-56	3.200
Farm buildings (exclusive of housing)	1954-56	
State farms		2.000
Machine tractor stations		2.900
Subtotal		<u>4.900</u>
Total		<u><u>12.525</u></u> <u>c/</u>

a. Data and methodology for these estimates are given in Appendix A.

b. Cost of private housing and collective farm construction is estimated in Table 2, p. 7, below.

c. A total of 0.965 billion rubles cannot be allocated to major state-built installations from available data.

### 3. Estimated Requirements for Selected Building Materials.

Building materials used in the new lands are classified in two groups, nationally accounted and local materials. The estimated total requirements of nationally accounted materials are given in Table 3.\* Requirements of local building materials (clay, stone, mud, and processed reeds) cannot be estimated, because the quantities used depend upon their availability to the construction sites.

\* Table 3 follows on p. 8.

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Table 2

Total Estimated Cost of Construction for the New Lands  
1954-56

				Billion Rubles
Type of Construction	1954	1955	1956	Total <u>a/</u>
State <u>b/</u>				
Kazakh SSR	0.590	4.030		4.620
RSFSR	1.080	3.000		4.080
Kazakh SSR and RSFSR	0.560 <u>c/</u>		3.870 <u>c/</u>	4.430
Total	<u>2.230</u>	<u>7.030 d/</u>	<u>3.870</u>	<u>13.130</u>
Collective farms				5.0 to 15.0
Private housing				5.0

a. Additional costs of rail lines and motor roads in 1957 are estimated at 360 million rubles.

b. Including construction of state farms, machine tractor stations, transportation network, storage facilities, and other installations.

c. This sum cannot be reasonably apportioned between the two republics.

d. The total expenditures for 1955 are based mainly on plan data. This figure is given here in order that it may be compared with the national plan for construction. Both plans were underfulfilled.

Because of the incessant demands by Soviet officials that local materials be used whenever they can be substituted for standard materials, it is difficult to calculate total requirements of the structures planned or needed in the new lands. The estimates presented are based on announced deliveries during the first 6 months of 1955. The method for expanding these figures is explained in Appendix A.

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Table 3

Estimated Requirements for Building Materials in the New Lands  
1954-56

Material	Unit	1954	1955	1956	Total
Cement	Thousand metric tons	350	750	1,000 a/	2,100
Flat glass	Million square meters	0.5	1.4	1.4	3.3
Shingles, asbestos and cement	Million pieces	30	100	100	230
Soft roofing	Million square meters	5	20	20	45

a. Despite an over-all decline of construction expenditures in the new lands in 1956, it is estimated that cement requirements will rise because of the increase in highway construction, a principal use of cement.

#### IV. Effect of the New Lands Program on the Soviet Construction Industry.

Two measures of the effect of the construction effort in the new lands may be used. One is the proportion of total state construction resources required for the new lands. Another is the priority rating of construction in these agricultural areas as it affects construction in other sectors of the economy.

##### 1. Proportion of Total State Construction.

The estimated value of the state construction planned in the new lands for 1955, 7,030 million rubles, is approximately 7 percent of the total value of new construction for which state funds were

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allocated in that year.\* The percentage of state construction expended in the new lands was considerably lower in 1954 and will be reduced in 1956, as may be seen by the lower total value of state construction in the new lands in each of those years.

The share of nationally accounted building materials required for construction in the new lands varied widely by type in 1955, as is shown in Table 4.\*\* A close relationship between these shares and the percentage of new state construction by value should not be expected, because of the extensive use of local materials and of prefabricated components in the new lands.

## 2. Priorities.

Press and radio reports indicate that construction priorities for the new lands apparently have been high but not overriding. At the same time, there is little direct evidence that other projects were deprived of construction resources in order that construction in the new lands could go forward.

Three reasons may be given for the little noticeable effect of the new lands program on other construction projects. The first is that resources set aside for earlier Soviet agricultural schemes were probably allocated to the new program. Suspension of three of the "great projects,"\*\*\* all primarily for agriculture, almost certainly took place in the first half of 1953. The heaviest demands for construction resources were to have arisen in the years 1954-56 had these projects been continued, and the MTS program outlined in 1953, which called for 10.5 billion rubles of construction in 1954-56, 19/ may have been drawn upon for the new lands program.

The second reason is the availability of large-scale resources from heavy industrial projects, a large number of which were completed in the later stages of the Fifth Five Year Plan (1951-55), as is clear

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\* Allocations for new state capital investment in 1955 were 167.2 billion rubles. 17/ In past years the value of construction has been about 60 percent of investment outlays.

\*\* Table 4 follows on p. 10.

\*\*\* The Main Turkmen, South Ukrainian - North Crimean, and Volga-Ural Canals, the construction of which has not been reported in the press since Stalin's death. 18/

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Table 4

Estimated Share of the National Production of Selected Building Materials  
Delivered to the New Lands in 1955

Material	Unit	Estimated Deliveries to the New Lands in 1955	Estimated National Production	Share Delivered to the New Lands (Percent)
Cement	Thousand metric tons	750	22,400	3.4
Flat glass	Million square meters	1.4	99	1.4
Shingles, asbestos and cement	Million pieces	100	1,488	6.7
Soft roofing	Million square meters	20	376	5.3

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from a survey of the Soviet press. That the new lands received a fair share of these released resources is indicated by a statement in June 1955 that "tens of thousands of qualified workers, engineers and technicians, veterans of the greatest construction projects in the land, have come to Kazakhstan to participate in the construction of state farms." 20/

The third reason is the extensive use of local building materials in the new lands, which has kept to a minimum the demand for building materials required for construction in other sectors of the economy.

V. Progress.

By the end of 1955 the major share of the basic construction required for the new lands program had been completed. The pace of construction has apparently kept up with the needs of agriculture for production facilities. Housing construction, however, has lagged badly. The 1954 plan for construction in the new lands was evidently under-fulfilled by a wide margin, but the 1955 plan was fulfilled by an estimated 85 percent, mainly as a result of the strenuous efforts in the second half of the year.

1. Degree of Completion of Construction.

It is evident that efforts have been concentrated on providing facilities necessary for agricultural production. Farm buildings on machine tractor stations and state farms, for example, are apparently more advanced than is housing. The construction of storage facilities may have been allowed to fall behind the ambitious schedule in 1955.

State housing construction completed in 1954 and planned for 1955 is estimated to be almost 2 million square meters. It is quite apparent from reports on plan fulfillment and from recent speeches, however, that 1955 housing plans were far from fulfilled. For example, of a total of 678,000 square meters to be built at state farms in Kazakh SSR in 1955, only 101,000 square meters had been completed by 1 September. 21/\* Private housing construction also fell below

\* This situation is not so bad as it first appears, because a large share of new housing in the USSR is usually completed in the late months of a year. For example, about one-half of all the housing built in the USSR in 1954 was completed in the last 3 months. 22/

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expectations. The actual volume of completed housing has not been announced, either for state or private construction.

In a speech of January 1956, Khrushchev implied that steps would be taken to alleviate the inadequate housing conditions in the new lands. 23/ It is probable that private builders will have the major responsibility for solving this problem. This probability is indicated by the drop in estimated allocations for state construction at state farms and machine tractor stations and by the suggestions that private housing construction will rise sharply in 1956. 24/

The gap between total estimated housing requirements of 14 million square meters and the volume of state housing construction should be noted. This gap will be made up largely by private housing construction. The balance of the gap may be explained by the possibility that all of the housing requirements will not be met.

The 426 new state farms established by the end of 1955 and the 400 to 500 machine tractor stations to be built or significantly expanded in 1954 and 1955 are believed to be all the units required for the operation of the new lands.\* Most of the need for facilities at these units has been satisfied, as is indicated by the estimated drop in 1956 expenditures of about 50 percent from the 1955 levels.\*\*

About 40 percent of the total planned lengths of rail lines and roads were scheduled to be built and put into operation by 1955. It is apparent that the 850 km of rail lines were not all in temporary operation by August 1955, as originally planned. 25/ Rail-line construction appears to be well advanced, however, in light of the statement in January 1956 that 1,850 km of new wide- and narrow-gauge line had been laid. 26/\*\*\*

As yet there is no precise indication of the actual length of rail line and roads built and put into operation. The balance of the plans for this construction call for the completion in 1956 and 1957 of about 1,250 km of rail lines and about 2,600 km of roads.

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\* See II, 4, above.

\*\* See Appendix A, Table 6, p. 26, below.

\*\*\* The length of line put into temporary operation was not stated.

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About 70 percent of the total storage facilities required for the new lands program was scheduled to be completed in 1954 and 1955. 27/ The actual achievements during these 2 years have not been reported.

It is probable, on the basis of available information, that construction of storage facilities in the new lands is behind schedule. A decree of June 1954 called for the performance of almost a quarter of the 1955 granary construction plan in 1954, so as to ensure the completion of 7 million tons of capacity during the first half of 1955. 28/ By the middle of 1955, however, it was reported that the Ministry of Procurement, USSR, had fulfilled its plan for putting new granaries into operation by only 16 percent. 29/ Unsatisfactory construction progress in the new lands was sharply scored in the press in July and August, when urgent measures were introduced. 30/

According to the original schedules, all but about 7 million tons of granary capacity was to be completed by the end of 1955, and it is believed that this capacity was scheduled to be completed in 1956. In addition, 110 grain elevators are scheduled to be started in 1956 and completed in 1957. 31/

## 2. Plan Fulfillment Reports.

Results of the 1954 construction plans in the new lands were not fully reported, but it is evident that the goals were missed by a wide margin. In Kazakh SSR the Ministry of State Farms fulfilled its plan by 80.9 percent; the Ministry of Agriculture, by 67.5 percent; and the Ministry of City and Rural Construction, by only 52.3 percent. 32/ It is likely that construction plans were also underfulfilled in the new lands of the RSFSR.

The 1955 construction plans in the new lands were almost certainly underfulfilled but by a much smaller margin than in 1954. This estimate is based primarily on the report that the Ministry of City and Rural Construction, USSR, fulfilled its 1955 plan by 85 percent. 33/\* Other fulfillment reports for the full year are lacking,

\* The plan report of the Ministry of City and Rural Construction, USSR, includes the reports of the Ministries of City and Rural Construction of Kazakh SSR and the RSFSR. The Ministry of City and Rural Construction, USSR, was responsible for 80 percent of the construction at state farms in 1955 34/ and for a major share of the construction on machine tractor stations. 35/ In Kazakh SSR its 1955 plan called for 1.7 billion rubles, 36/ or 42 percent of the estimated total of planned new lands state construction volume in that republic.

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but there is no indication that the over-all construction plan was seriously underfulfilled. Railroad construction, in fact, was approximately on schedule. <sup>37/</sup> On the basis of this limited information, it is estimated that the over-all construction plan in the new lands was fulfilled by 85 percent in 1955.

The 85-percent plan fulfillment by the Ministry of City and Rural Construction, USSR, takes on added significance when viewed in the light of the sharp lags noted in the earlier part of 1955. In the first quarter, this ministry had fulfilled less than 3 percent of its 1955 plan for the Ministry of State Farms. <sup>38/</sup> All of the monthly construction plans for republican ministries of Kazakh SSR were underfulfilled through May, and it was not until June that the monthly plan was fulfilled. <sup>39/</sup> By the end of May, only 10.8 percent of the year's plan for state farms had been completed in Kazakh SSR, <sup>40/</sup> and at the midyear mark the over-all fulfillment of capital investment plans in that republic was 78 percent. <sup>41/</sup> Half-year plan fulfillment for the Ministry of City and Rural Construction, USSR, was 79 percent <sup>42/</sup>; for the Ministry of Kazakh SSR, 78 percent <sup>43/</sup>; and for the Ministry of the RSFSR, 79 percent. <sup>44/</sup> The July construction plan for the new lands in Kazakh SSR was overfulfilled, but it was recognized that strong measures were needed to overcome the underfulfillment in the first half of the year. <sup>45/</sup> As of 1 August the Kazakh SSR plans were still behind schedule, deliveries of building materials were lagging, and many projects at state farms were at a standstill. <sup>46/</sup> In a September review of progress it was revealed that construction in the new lands in Kazakh SSR, particularly of housing, was still lagging badly and that practically no work had been done at 46 of the 260 state farms where construction was under way. <sup>47/</sup>

In an October 1955 issue of Pravda, urgent efforts were demanded of the Ministry of City and Rural Construction, USSR; the Ministries of State Farms and of Agriculture, USSR; and the Ministries of Agriculture and of State Farms of the RSFSR and Kazakh SSR. They were called on to analyze the state of construction affairs at every state farm and every machine tractor station and to take immediate measures to fulfill the established plans. <sup>48/</sup>

Subsequent to these reports, little news of construction progress in the new lands has been available. In fact, there has been a noticeable reduction in press coverage since August 1955. It is apparent from the plan fulfillment of the Ministry of City and Rural Construction, USSR, however, that the USSR achieved some success

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in making up the earlier lags in new lands construction. Furthermore, it is logical that during this period they would have concentrated on the projects most closely related to the needs of agricultural production. This logic is supported by a lack of evidence that agricultural production has been impaired by an underfulfillment in construction work in the new lands.

VI. Prospects for Plan Fulfillment.

Despite lags through 1955 the USSR is expected to carry out satisfactorily its construction plans for the new lands. The poor progress in housing construction undoubtedly has depressed the morale of the new settlers, and immediate relief is not in sight. There is no evidence, however, that agricultural production in the new lands has been directly impaired by the failure to complete construction projects on time, nor is any such impairment considered likely.

If lagging construction should threaten production, it is probable that the USSR would be able to take such measures as were recommended in the middle and later stages of 1955. At that time the agricultural ministries were put under pressure to take a more active role in construction performed for them; work was to go on a 24-hour basis; farm laborers released from agricultural work were to be given construction jobs; and help was asked from the All-Union ministries in the form of building material supplies, equipment, and technical aid. <sup>49/</sup> That these measures had some effect is indicated by the fulfillment by the Ministry of City and Rural Construction, USSR, of 85 percent of its 1955 plan, as compared with the fulfillment of the half-year plan of the Ministry of City and Rural Construction, Kazakh SSR, by 78 percent and that of the Ministry of City and Rural Construction, RSFSR, by 79 percent. <sup>50/</sup>\*

Measures for the attainment of necessary construction goals were apparently to continue in 1956. Projects of the Ministry of City and Rural Construction in the Far East, Siberia, the Urals, and Kazakh SSR (that is, primarily in the new lands) are included in a broad grouping of heavy industrial and defense projects at which construction wages will be 14 percent higher than at other projects. At the conference on the new lands held in January 1956, agricultural workers were asked to work on the construction of housing and communal facilities, which Khrushchev described as a task that must be solved. <sup>51/</sup>

\* As pointed out above, this ministry had the major responsibility for the construction of state farms and machine tractor stations in the new lands in 1955.

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APPENDIX A

METHODOLOGY

The estimates in this report are based on planned or estimated requirements of facilities and then on cost.

I. Basis for Estimate of Housing Requirements.

Table 5

Estimated Number of Additional Workers Required in the New Lands a/  
1954-56

				Thousand Workers
Type of Worker	1954	1955	1956	Total
Agricultural workers				
Kazakh SSR				
State farms and machine tractor stations	100	190	240	530
Collective farms	40	60	50	150
Subtotal Kazakh SSR workers	<u>140</u>	<u>250</u>	<u>290</u>	<u>680</u>
RSFSR				
State farms and machine tractor stations	50	110	51	211
Collective farms	60	320.8	58	438.8
Subtotal RSFSR workers	<u>110</u>	<u>430.8</u>	<u>109</u>	<u>649.8</u>
Total agricultural workers	<u>250</u>	<u>680.8</u>	<u>399</u>	<u>1,329.8</u>
Ancillary workers				400
Grand total all workers				<u><u>1,729.8</u></u>

a. 52/

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From the total number of additional workers the number of additional inhabitants is estimated on the basis of an average family of 4 of whom 2.5 are to be employed. 53/ Multiplying the total of workers, 1,729,800, by a factor of 1.6 (4 over 2.5) results in a rounded total of 2.8 million inhabitants.

The average of 5 square meters of housing per new lands inhabitant is estimated on the following basis. Farm houses built in recent years by private individuals have averaged about 37.5 square meters of floor-space throughout the USSR. 54/ A house of this type would provide more than 5 square meters per inhabitant. It is doubtful, however, that private houses in the new lands would be as large as the average elsewhere because of the pressure to get the house built in a minimum of time. More than 6 square meters, nevertheless, would be provided initially in private houses under these conditions. On the other hand, unmarried workers living in dormitories would have less than 5 square meters each. Although it is arbitrary to submit that inhabitants having more than 5 square meters are offset by those having less, resulting in an average of 5, nevertheless, in the absence of workable Soviet data on total housing requirements by type, this estimate is the best possible. This assumption is supported by the fact that the per capita living space in urban areas at the end of 1955 was less than 5 square meters. 55/

## II. Number of New and Significantly Expanded Machine Tractor Stations in the New Lands.

The following information is available on the construction of machine tractor stations:

1. In the new lands of Kazakh SSR, 76 machine tractor stations and mechanized animal husbandry stations were to have been built in 1954, but few were completed. 56/ In 1955 the goal of Kazakh SSR was "to organize at least 250 new grain state farms and 165 MTS," which would require a large construction program. 57/

2. In 1955 the Ministry of City and Rural Construction was building 330 machine tractor stations in the RSFSR. 58/

3. In 1956 the Ministry of City and Rural Construction is carrying out the construction of 198 machine tractor stations in the USSR. 59/

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It is believed that these references are to completely new machine tractor stations and to those being significantly expanded. This belief is based mainly on the lack of distinction in Soviet sources between new and expanding machine tractor stations, as opposed to statements that a definite number of new state farms are being built.

The 165 new and expanded machine tractor stations in Kazakh SSR are clearly connected with the new lands program. The 330 under construction in the RSFSR, on the other hand, are probably not all located in the new lands. The Ministry of City and Rural Construction is not the only organization building machine tractor stations in the new lands, however, and it is estimated that this figure of 330 is the best approximation of the maximum number in the new lands area of the RSFSR.

It is believed that most, if not all, of the machine tractor stations under construction in 1955 and 1956 were started in an earlier year. On this basis the maximum total would be 495 (165 in Kazakh SSR and 330 in the RSFSR). Because of the uncertainty of the data, it is estimated that the number of new or significantly expanded machine tractor stations in the new lands will total 450, plus or minus 10 percent.

III. Bases for Table 1.\*

1. State Housing.

a. Total state housing is estimated to be 2.5 million square meters.

b. A construction planning official in Kazakh SSR gave the cost of prefabricated housing as 800 rubles per square meter. 60/ This figure is considered to be a reasonable average cost of all state housing in the new lands because of the heavy shipments of prefabricated components and because it is in close accord with an average calculated by other means.

c. At an average cost of 800 rubles, 2.5 million square meters of housing will cost 2 billion rubles.

2. Rail Lines.

a. The total length of broad-gauge lines is to be 557 km and of narrow-gauge lines, 1,575 km. 61/

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\* P. 6, above.



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b. It is stated that the cost of constructing 100 km of broad-gauge lines could be repaid in 6 to 7 years by the yearly saving of 15 million rubles, which would be realized by hauling over broad-gauge lines rather than by truck and wagon. 62/ The cost of constructing 557 km of broad-gauge lines is thus estimated at 543,075,000 rubles (6.5 x 15 million rubles over 100, or 975,000 rubles, multiplied by 557 km).

c. It is stated that the cost of constructing 100 km of narrow-gauge lines could be repaid in  $2\frac{1}{2}$  to 3 years by the yearly saving of 12 million rubles, which would be realized by hauling over narrow-gauge lines rather than by truck and wagon. 63/ The cost of constructing 1,575 km of narrow-gauge lines is thus estimated at 519,750,000 rubles (2.75 x 12 million rubles over 100, or 330,000 rubles, multiplied by 1,575 km).

d. These statements appear in an article on the importance of transportation to agricultural growth and are therefore appropriately applied to rail-line construction in the new lands. Other statements support the conclusions based on this article.

3. Roads.

a. The total length of roads is to be 6,100 km. 64/

b. It is believed that about half of this length will be hard-surfaced and the other half, improved dirt roads.\*

c. The cost of hard-surfaced roads is estimated mainly on the basis of allocations of 50 million rubles for the construction of 150 km of hard-surfaced roads in the northern part of Kazakh SSR, 65/ or 333,000 rubles per kilometer.\*\* Applied to the total of 3,050 km, this results in a cost for hard-surfaced roads of 1,015,650,000 rubles.

\* Using the derived costs for both types of road, the cost of constructing the 700 km of roads which were planned in Kazakh SSR in 1955 was estimated on the basis of this assumption. This estimated cost is within 10 percent of the 1955 allocations to the Ministry of Automobile Transport and Highways, Kazakh SSR. 66/

\*\* It has been stated that narrow-gauge rail lines cost less than hard-surfaced roads. 69/ This fact tends to support both the estimated cost of narrow-gauge lines, 330,000 rubles per kilometer, and the estimated cost of the hard-surfaced roads.

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d. The cost of dirt roads is estimated on the basis of the following statements in the Soviet construction newspaper 67:

- (1) The approximate cost of 1 km of precast concrete slab road is 270,000 rubles.
- (2) Construction of such roads costs about 2.5 times more than dirt roads.

Thus a factor of 108,000 rubles per kilometer is derived (270,000 rubles over 2.5). Applied to the total of 3,050 km, this results in a cost for dirt roads of 329.4 million rubles.

4. Storage Facilities.

a. In Kazakh SSR in 1955 there were allocated 950 million rubles for the construction of 6 million tons of granary capacity and 120,000 tons of elevator capacity. 68/ A total of almost 20 million tons of granary capacity and 773,000 tons of elevator capacity is required for the new lands program, probably through 1956.

b. The total cost of these storage facilities, 3.2 billion rubles, was derived by relating the allocations of the Kazakh SSR per ton of capacity to the total capacity required in the new lands.

c. Additional construction of 110 elevators is to take place in 1956-57. 70/ Since neither the size of the elevators nor the portion of the construction to be performed in 1956 has been given, no estimate is made of this cost. It is believed, however, that this cost would not substantially affect the estimate.

5. Farm Buildings.

a. State Farms.

(1) Total allocations for construction of state farms in Kazakh SSR in 1955 were 1.296 billion rubles, which were to cover part of the construction of 678,000 square meters of housing. 71/ This total is reduced to about 760 million rubles when housing, at an average cost of 800 rubles per square meter, is removed. The sum of 760 million rubles averages 2.26 million rubles for each of the 337 state farms established in Kazakh SSR by 1955. Applied to the 426 state farms established in the new lands by 1955, this average results in a total in 1955 of almost 1 billion rubles.

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(2) The allocations for construction of state farms in the new lands were much lower in 1954 than in 1955 and, in Kazakh SSR, are to be reduced by an unstated amount in 1956. 72/ It is estimated that the total cost of constructing farm buildings in 1954 and 1956 is equal to this cost in 1955.

b. Machine Tractor Stations.

(1) Appropriations in 1954 for construction at 76 machine tractor stations and mechanized animal husbandry stations in Kazakh SSR were 260 million rubles. This sum was to suffice for the completion of 76 repair shops, 184 tractor garages, more than 100 sheds for combines, about 70 oil bases, and many other production and cultural-welfare buildings. 73/

(2) These structures are believed to represent the essential requirements of farm buildings, exclusive of housing, at a machine tractor station established in the new lands. The average cost, per machine tractor station, of 3.4 million rubles, applied to the estimate of 450 new or significantly expanded machine tractor stations in the new lands, results in a total of about 1.5 billion rubles.

(3) In addition, the total cost of expanding machine tractor stations throughout the new lands is estimated at 1.4 billion rubles. This estimate is derived by subtracting the cost of the new or significantly expanded machine tractor stations, 1.5 billion rubles, from the total estimated yearly expenditures for nonresidential construction on machine tractor stations, 2.9 billion rubles.\* For the balance of the "over 1,600" machine tractor stations participating in the new lands program, 74/ the cost of this relatively minor expansion averages about 1.2 million rubles per machine tractor station, an amount that is considered to be reasonable.

IV. Bases for Figures in Table 2.\*\*

1. State Construction, 1954, in Kazakh SSR.

a. Allocations in 1955 of 950 million rubles for the construction of storage facilities were stated to be 5 times 1954 expenditures. 75/ It is therefore estimated that the 1954 expenditures were about 190 million rubles.

\* See IV, 1, b, p. 23, below; IV, 2, b, p. 23, below; IV, 4, a, p. 24, below; Table 6, p. 26, below; and IV, 6, p. 27, below.

\*\* P. 7, above.

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b. Allocations in 1954 of 260 million rubles, believed to be for MTS structures other than housing, were underutilized by an unstated amount. 76/ It is estimated that 225 million rubles were expended.

c. Ninety-three state farms were established in 1954. 77/ An average of 4 million rubles per state farm is set aside in its first year. 78/ Of the total of 372 million rubles, it is estimated that more than half was expended on housing and the balance, about 175 million rubles, for structures other than housing.

2. State Construction, 1954, in the RSFSR.

a. New storage capacity for the new lands in the RSFSR was about three times that for Kazakh SSR. 79/ Tripling the expenditures for Kazakh SSR results in a total of 570 million rubles.

b. The number of machine tractor stations under construction in 1955 in the new lands of the RSFSR was up to twice the total in Kazakh SSR (see 2, above). It is assumed that this relationship held in 1954 and the estimated expenditures for structures other than housing in Kazakh SSR were doubled, resulting in an estimate of 450 million rubles.

c. The number of new state farms established in the new lands of the RSFSR in 1954 was one-third that of Kazakh SSR. 80/ The expenditures for structures other than housing in Kazakh SSR were divided by 3 and rounded to 60 million rubles.

3. State Construction, 1954, Kazakh SSR and the RSFSR (Unapportioned).

a. In early December 1954 it was stated that 380,000 square meters of housing had been completed in the new lands. 81/ It is estimated that by the end of the year this total was extended to 400,000 square meters. At an average cost of 800 rubles, this total represents a cost of 320 million rubles.

b. It is estimated that 10 percent of the total cost of transportation facilities (see Table 1\*), or 242.5 million rubles, was expended in 1954.

\* P. 6, above.

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c. The sum of these figures was rounded to 560 million rubles.

4. State Construction, 1955, in Kazakh SSR.

All of the construction performed by and for ministries of Kazakh SSR is discussed in (a), below. All other state construction, the value of which has been estimated, is discussed in the remaining paragraphs.

a. The total planned value of construction to be performed by and for ministries of Kazakh SSR in 1955 was 2.5 billion rubles. 82/ Of this total the following can be directly identified: construction at state farms, 1,296 million rubles 83/; MTS construction, exclusive of housing, 550 million rubles 84/; and road construction, 141 million rubles. 85/ The cost of building 325,000 square meters of housing other than at state farms (the estimated difference between "over a million square meters" 86/ and the 678,000 square meters planned at state farms 87/) at an average of 800 rubles, is estimated at 260 million rubles. The balance of 2.5 billion rubles, about 10 percent, cannot be identified.

b. Of the total length of rail lines to be built for the new lands, 76.5 percent are to be built in Kazakh SSR. 88/ Approximately 40 percent of the total length was scheduled for completion by the end of 1955, 89/ and it is estimated that 50 percent of the total costs, 10 percent in 1954 and 40 percent in 1955, had been incurred by that time. Of the estimated total costs of 1.075 billion rubles, 430 million rubles (40 percent) are estimated to have been expended in 1955, with 330 million rubles (76.5 percent) expended in Kazakh SSR.

c. The amount of 950 million rubles was allocated for the construction of storage facilities in Kazakh SSR in 1955. 90/

d. The cost of ancillary installations is estimated at 250 million rubles, which is about 6 percent of the total and is considered reasonable. This estimate cannot be considered accurate, because the number, types, and sizes of these projects cannot be determined. Certain installations are known to be required, such as building materials plants, communications facilities, power plants, local industry enterprises, and truck repair shops. Part of the cost of these installations has probably been accounted for in the total value of construction done by republican ministries. Construction of still other, relatively small installations was undoubtedly required in Kazakh SSR in 1955.

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Under the unusual circumstances of the new lands program it is believed that the state would have to assume greater responsibility for financing ancillary installations and that a substantial part of this financing would be channeled through All-Union as well as through republican ministries.

e. The total of these estimated values is 4.03 billion rubles.

5. State Construction, 1955, in the RSFSR.

It is estimated that state construction expenditures on major types of installations in the RSFSR in 1955 were 75 percent of the expenditures in Kazakh SSR (see Table 6\*). This figure of 75 percent has been applied to the total estimated state construction expenditures in Kazakh SSR in 1955. The result is a total estimated expenditure of 3 billion rubles.

The methodology used in Table 6 was subjected to a check because the estimates depend on the accuracy of the estimates of relative physical volumes of construction in the two republics. These relative volumes were estimated on varying bases. The check, a relating of construction volume to planned sown areas, closely supports the estimate based on Table 6.

It is seen from Table 6 that the estimated value of construction in the RSFSR ranged from 69 to 81 percent of the estimated value in Kazakh SSR. The estimated relationship, 75 percent, is the midpoint in this range.

Another method used for estimating the value of 1955 state construction in the RSFSR was the relating of construction value to the area of cultivation. It is believed that the USSR would have established such a relationship.

A logical relationship would be that of construction value in 1955 to planned sown area in 1956, when the USSR plans to have brought the entire new lands areas under cultivation. The estimated area planned for sowing in 1956 in the new lands of the RSFSR, 12.5 million, is about 71.5 percent of the estimated 17.5 million hectares planned for sowing in 1956 in the new lands of Kazakh SSR. Because this percentage is within the range established by the first method, it is believed that the estimate of 75 percent is reasonable.

\* Table 6 follows on p. 26.

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Table 6

Derivation of the Estimated Value of Major Types of Construction in the New Lands of the RSFSR  
1955

Type of Construction	Estimated 1955 Value of Construction in Kazakh SSR	Relative Physical Volume of Construction in the RSFSR	Estimated Value of Construction in the RSFSR	Billion Rubles
State farms (exclusive of housing)	0.760	0.26 a/	0.200	
Machine tractor stations (exclusive of housing)	0.550	1.4 to 2.0 b/	0.770 to 1.100	
Housing	0.800	0.50 c/	0.400	
Rail lines	0.330	0.31 d/	0.100	
Roads	0.140	1.14 e/	0.160	
Storage facilities	0.950	0.86 f/	0.820	
Total	3.530		2.450 to 2.870	

a. By the end of 1955, 337 new state farms had been set up in the new lands of Kazakh SSR and 89 in the RSFSR.

b. In 1955, 165 machine tractor stations were under construction in Kazakh SSR and 230 to 330 in the RSFSR.

c. It has been estimated that 1 million square meters of housing were to be built in Kazakh SSR and

500,000 square meters in the RSFSR.

d. The total length of rail line will be 1,632 km in Kazakh SSR and 500 km in the RSFSR.

e. The length of roads planned for completion in 1955 was 700 km in Kazakh SSR and 800 km in the RSFSR.

f. The total granary and elevator capacity scheduled for completion in 1955 was 6,120,000 tons in Kazakh SSR and 5,278,000 tons in the RSFSR.

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6. State Construction, 1956.

It can be established that the volume of state construction in the new lands will decline in 1956 from the volume in 1955, and the amount of the decline can be estimated. Information is not adequate, however, to permit a distribution of the 1956 volume of construction between the two republics. The over-all estimate has been based on available information by type of construction.

The total 1955 state expenditures for construction at state farms and machine tractor stations, including housing, has been estimated at 3.5 billion to 3.8 billion rubles (see Table 6\*). It is estimated on the basis of the following information that 1956 expenditures are to be decreased by about 50 percent.

The 1956 budget allocations of Kazakh SSR have been reduced by over 1.4 billion rubles. This reduction was attributed to the fact that considerable allocations for the organization and construction of new state farms in 1955 were not anticipated in 1956. <sup>91/</sup> If it is assumed that the 1.4-billion-ruble reduction reflects the cut in state farm allocations and that half of this reduction represents the cut in construction outlays, a total reduction of 700 million rubles in construction at state farms in Kazakh SSR in 1956 may be estimated. A reduction of this size would be over 50 percent of the 1955 allocations of 1.296 billion rubles for construction at state farms. <sup>92/</sup> Since almost 80 percent of the new state farms have been organized in Kazakh SSR, it is considered reasonable to apply this reduction to the total value of state farm construction in 1955.

The number of machine tractor stations on which construction will be under way in 1956 is estimated to be half or less than half of the number under construction in 1955. At the January conference of new lands workers, I.K. Kozyulya, the Minister of City and Rural Construction, USSR, stated that his ministry was carrying out construction at 198 machine tractor stations, <sup>93/</sup> presumably most or all of which are located in the new lands. In the RSFSR alone in 1955 this ministry was building at 330 machine tractor stations, <sup>94/</sup> most of which were undoubtedly in the new lands, and at most of the 165 machine tractor stations in Kazakh SSR. Since the Ministry of City and Rural Construction has the primary responsibility in this field, it is believed that the reduction in the number of its MTS assignments in 1956 is an accurate reflection of the over-all reduction.

\* P. 26, above.

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State allocations in 1956 for housing construction at state farms and machine tractor stations in the new lands may be expected to decline pursuant to the reduction in allocations or number of units under construction but not necessarily in the same proportion. Reductions in state expenditures for housing would be made possible by assigning greater responsibility to private builders. In September 1955 it was indicated that private building was to increase, 95/ and it was indicated again in late November. 96/ Another way to cut state expenditures would be to lower the cost or quality of construction. That such efforts are being made is evidenced by a recent discussion among Kazakh state farm officials of a way to cut in half the cost of prefabricated houses. 97/

The remaining granary capacity scheduled for construction in the new lands amounts to less than 7,176,000 tons.\* The cost of constructing this amount of granary capacity is estimated to be approximately the same as the cost of constructing 6 million tons of granary and 120,000 tons of elevator capacity in Kazakh SSR in 1955, for which 950 million rubles were allocated. 100/

In spite of apparent difference in capacity between that planned for the new lands and that constructed in Kazakh SSR in 1955, the comparison of costs seems justified for the following reasons:

- a. The total capacity remaining to be built could be as much as 500,000 tons less than stated.\*
- b. No elevator capacity, which is costlier to build than granary capacity, remains scheduled for completion in 1956.
- c. Costs per ton of capacity should be somewhat lower in 1956 than in 1955.\*\*

\* The total capacity remaining to be built must be expressed as less than 7,176,000 tons because it is derived by subtracting 12,824,000 tons, the total of granary capacity scheduled for completion by the end of 1955, 98/ from the planned total of almost 20 million tons. 99/ The planned total, therefore, could be as little as 19.5 million tons.

\*\* The 1954 plan in Kazakh SSR called for the construction of 483,000 tons of granary and 49,000 tons of elevator capacity. 101/ From Soviet statements it is calculated that expenditures in that year were 190 million rubles, 102/ or more than twice the planned cost per ton of capacity in 1955. 103/ This difference is abnormally high but does indicate the downward trend of costs from year to year.

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On the above bases it is estimated that 1 billion rubles will be spent for this construction in 1956.\*

The 1956 expenditures for rail-line and road construction are estimated to be about the same or slightly lower than 1955 expenditures. Although this estimate cannot be considered precise, it can be considered reasonable on the following basis. By the end of 1955, approximately 40 percent of the planned length of rail lines and roads had been completed, and it is estimated that 50 percent of the total construction costs had been incurred. A reasonable distribution of the remaining costs would be 35 percent in 1956 and 15 percent in 1957.\*\*

It is estimated, therefore, that, of the total transportation costs, 830 million rubles will be expended in 1956 and 360 million rubles in 1957.

Because of the sparseness of information and the need to make broad assumptions, state construction expenditures in 1956 for ancillary facilities cannot be estimated on a firm basis. The estimated cost of building ancillary facilities in 1955, 430 million rubles, is taken as the base, which is reduced arbitrarily by 50 percent in accordance with the estimated 1956 reduction in construction at state farms and machine tractor stations. This results in an estimated expenditure of 215 million rubles.

#### 7. Collective Farm Construction.

The total value of collective farm construction in the new lands is estimated at 5 billion to 15 billion rubles. The reason for

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\* The 1956 construction costs of additional elevators cannot be estimated but are believed to have no substantial effect on this estimate. Construction of 110 elevators is scheduled to begin in 1956 and to end in 1957. 104/ Neither the type nor the capacity of these elevators has been stated, nor has the 1956 share of these costs been indicated.

\*\* This distribution does not necessarily apply equally to both rail-line and road-construction costs.

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such a range is that information is extremely limited,\* with the sole basis being a vague statement by a construction planning official of Kazakh SSR.

The official stated that in 1954 and 1955, construction on collective farms mounted to 2.5 billion rubles, but he did not specify the part of this amount allotted to the new lands program. 106/ On the arbitrary assumptions that 80 percent of this amount, or 2 billion rubles, was expended in the new lands areas of Kazakh SSR and that 3 times this amount, or 6 billion rubles, was expended in the new lands of the RSFSR, the 1954-55 total would amount to 8 billion rubles. It may be expected that collective farm expenditures in the new lands in 1956 will decline, perhaps to one-half the rate of the past 2 years, or to 2 billion rubles. Giving this total a range of plus or minus 50 percent results in an estimated total of 5 billion to 15 billion rubles.

#### 8. Private Housing Construction.

The same official stated that houses built of local materials should cost from 350 to 400 rubles per square meter. 107/ At 400 rubles per square meter, a 37.5-square-meter house would cost 15,000 rubles, the normal limit for a private house. 108/ When applied to the estimated private housing requirements in the new lands, 11.5 million square meters, the resultant total is about 5 billion rubles. This estimate is considered to be reasonable, although probably somewhat high.

#### V. Bases for Figures in Table 3.\*\*

The principal basis for estimating materials requirements was the announced total deliveries to the new lands during the first half of 1955, and these totals have been expanded to cover the period 1954-56. The estimates for 1955 are therefore more valid than those for 1954 and 1956. Because of the wide variety of materials that could be used in

\* It is surprising that the monthly periodical Sel'skiy stroitel' (Rural Builder) did not have a single article in 1955 on the construction program in the new lands. 105/ This periodical is intended for the guidance of collective farm builders in the RSFSR, where a large-scale effort in conjunction with the new lands program was undoubtedly under way in 1955.

\*\* P. 8, above.

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particular types of structure, a direct method for making these estimates was found to have little validity. It has been urged frequently that local materials be substituted for nationally manufactured materials wherever possible.

1. 1955.

The announced deliveries during the first 6 months of 1955 were as follows: cement, about 300,000 tons; window glass, over 700,000 square meters; asbestos and cement shingles, 50 million pieces; and soft roofing, 10 million square meters. 109/ The total of each of these materials, except cement, was doubled to arrive at the 1955 total. Cement is unlike the other materials because it must be used shortly after manufacture and its use is limited in freezing weather. Thus it is estimated that deliveries of cement in 1955 were in accord with the seasonal variation in the volume of construction, about 40 percent in the first half of the year and 60 percent in the second half.

2. 1954.

On the basis of estimated ruble expenditures, the 1954 requirements for all of these materials except cement are estimated to have been about one-fourth to one-third of the 1955 requirements. Requirements for cement are estimated to have been relatively higher because of the proportionately greater amount of highway construction in 1954.

3. 1956.

The 1956 requirements for all of these materials except cement are estimated to be the same as in 1955, despite the decreased volume of state construction. Collective farm and private construction probably will require greater amounts of these particular materials, thus offsetting most if not all of the decreased demand of state construction. Cement requirements have been raised because of an increase in highway construction in 1956, and it has been stated that a major use of cement in the new lands is for highway construction. 110/

VI. Bases for Figures in Table 4.\*

The 1955 requirements for building materials are from Table 3.\*\* The national production of these materials has been derived from the directives for the Sixth Five Year Plan (1956-60) and the 1955 plan fulfillment report. 111/

\* P. 10, above.

\*\* P. 8, above.

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APPENDIX B

GAPS IN INTELLIGENCE

The gaps in intelligence in this report result from limited information on collective farm construction and from the general decrease in press coverage since about September 1955.

Data on collective farm construction remain inadequate, and the estimated total value of this construction was given a range of plus or minus 50 percent.

The drop in recent press coverage has made it difficult to estimate the actual construction volume in 1955 and the planned volume in 1956. In particular, more information is needed on 1956 construction plans for state farms, machine tractor stations, and state housing.

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APPENDIX C

SOURCE REFERENCES

The sources in this report are to Soviet statements in newspapers, journals, and broadcasts. Besides the coverage of the central press and economic journals, two newspapers, Stroitel'naya gazeta and Kazakhstanskaya pravda, were surveyed.

Stroitel'naya gazeta is the triweekly newspaper published by the State Committee for Construction Affairs of the Council of Ministers, USSR. This newspaper covers all major developments in the field of construction. A careful survey of Stroitel'naya gazeta was made in FDD and ORR. Its articles on both broad and specific aspects of construction in the new lands have been of particular value.

Kazakhstanskaya pravda, the principal newspaper in Kazakh SSR, provided broad and specific coverage of developments in that republic. Because the greater part of the new lands areas is in Kazakh SSR, this newspaper was also of particular value.

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Evaluations, following the classification entry and designated "Eval.," have the following significance:

<u>Source of Information</u>	<u>Information</u>
Doc. - Documentary	1 - Confirmed by other sources
A - Completely reliable	2 - Probably true
B - Usually reliable	3 - Possibly true
C - Fairly reliable	4 - Doubtful
D - Not usually reliable	5 - Probably false
E - Not reliable	6 - Cannot be judged
F - Cannot be judged	

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"Documentary" refers to original documents of foreign governments and organizations; copies or translations of such documents by a staff officer; or information extracted from such documents by a staff officer, all of which may carry the field evaluation "Documentary."

Evaluations not otherwise designated are those appearing on the cited document; those designated "RR" are by the author of this report. No "RR" evaluation is given when the author agrees with the evaluation on the cited document.

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All sources in this report are evaluated RR 2.

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1. Stroitel'naya gazeta, 5 Aug 55, p. 3. U.

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2. [REDACTED]

3. Current Digest of the Soviet Press, vol 7, no 6, 23 Mar 55, p. 16. U. (tr from Izvestiya, 6 Feb 55, p. 8. U)

25X1A2g

4. [REDACTED]

FOIAb3b1

25X1A2g

5. [REDACTED]

FOIAb3b1

6. [REDACTED]

7. Sotsialisticheskoye sel'skoye khozyaystvo, no 1, 1955, p. 15. U.

8. Current Digest of the Soviet Press, vol 6, no 26, p. 13. U. (tr from Pravda, 27 Jun 54, p. 1. U)

9. Sotsialisticheskoye sel'skoye khozyaystvo, no 1, 1955, p. 15. U.

FOIAb3b1

10. [REDACTED]

11. [REDACTED]

12. Joint Press Reading Service, Moscow, 22 Jan 55. U. (tr from Sel'skoye khozyaystvo, 20 Jan 55, p. 3. U)

13. Ibid., 24 Jan 55. U. (tr from Pravda, 24 Jan 55. U)

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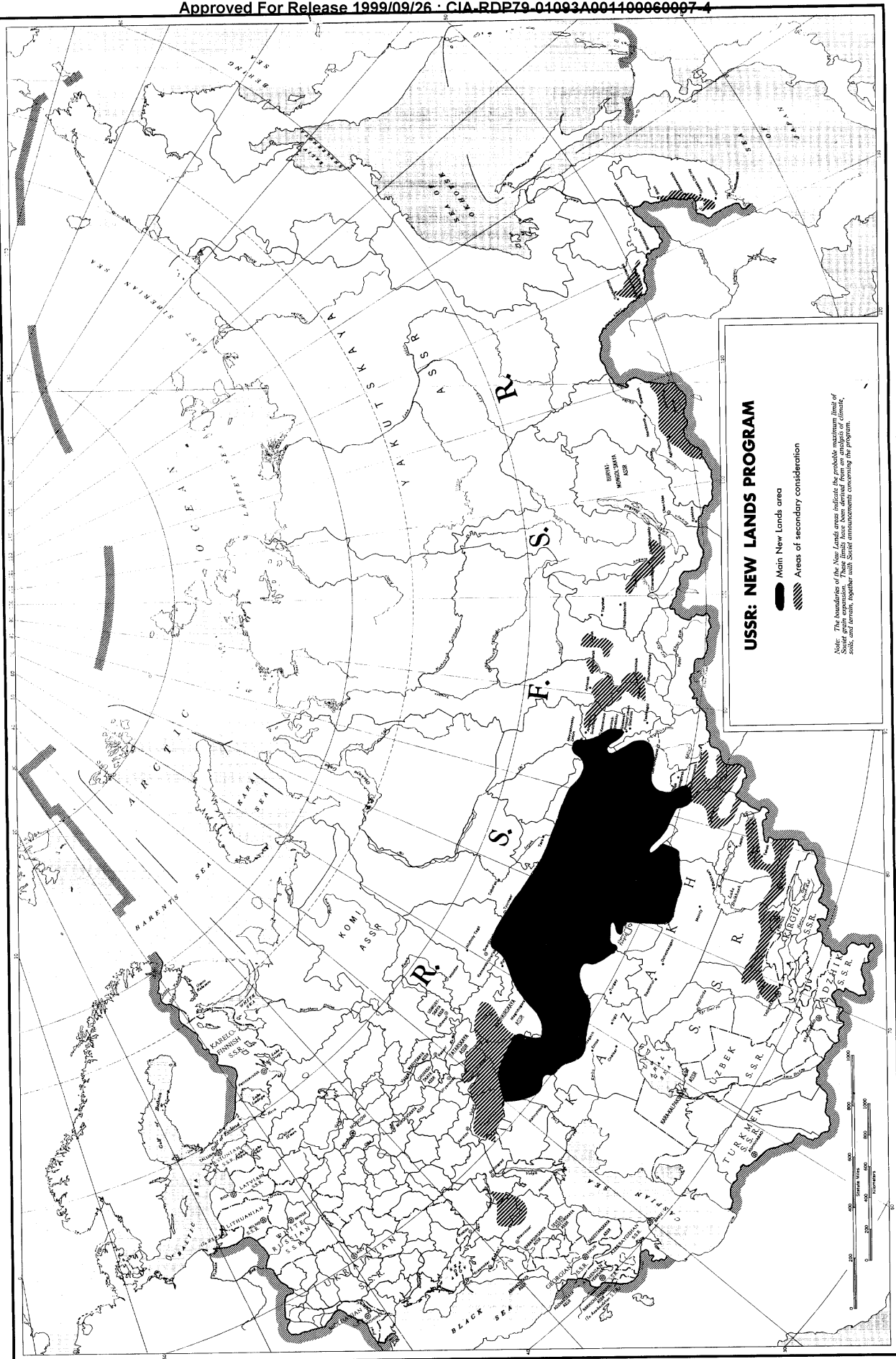
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